DOCUMENT RESUME

ED 137 688 CG 011 274

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TITLE New Projective Screening Techniques for Assessing Stress in College Students.
PUB DATE [70]
NOTE 7p.; Paper presented at the Annual Convention of the National Association of School Psychologists (8th, Kansas City, Missouri, March 23-27, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Anxiety; *Behavior Rating Scales; *College Students; Individual Psychology; *Projective Tests; *Psychological Evaluation; Research Projects; *Screening Tests; Stress Variables; *Test Reliability

ABSTRACT

One of the most persistent problems in the use of projective techniques is the need to develop objective, reliable and valid scoring systems. The sample consisted of 100 college students enrolled in an introductory psychology course. Ss were administered the DAPIR along with an extensive biographical questionnaire. Additionally, Ss were rated by their psychology instructor on a behavioral rating scale similar to the DAPIR scale. Results indicate that the interrater reliability as determined by the Spearman Brown rank order correlation was relatively high. Six major factors which accounted for 64 percent of the variance were: (1) reaction to stress, (2) environmental detail, (3) emotion and mood, (4) body position, (5) movement, and (6) adequacy of human figure. The major conclusions were that: (1) the DAPIR be used with other diagnostic and counseling information; (2) it could be used by teachers and counselors as a screening technique; (3) that the DAPIR and other techniques can be used together for identifying students who might potentially need more intensive counseling. (Author)

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ED137688

"New Projective Screening Techniques for Assessing Stress in College Students"

The early identification of students who are experiencing a high degree of stress has often been cited as a crucial factor in the counseling process (Tyler, 1969). Of particular importance within the initial counseling stages is the evaluation of the client's level of anxiety. The present study is concerned with the development and exploration of a short, easily administered diagnostic tool which can be used by counselors and psychologists for assessing a number of anxiety and personality factors. The ultimate goal of this research is the development of an easily administered and scored measure which would yield useful information regarding the client's reaction to stress and anxiety.

Numerous indices of anxiety states have been developed and include self-report questionnaires, Q-sort techniques, subscales of personality inventories and indices on projective techniques. The Draw-A-Person In the Rain (DAPIR), which has been attributed to Abrams and Amchin (Hammer, 1958) is a technique which attempts to get a picture of the individual under conditions of unpleasant environmental stress, as represented by the rain. The DAPIR has been primarily used by clinicians as a global means to evaluate factors related to personality variables and body image. Unfortunately, this measure has been used by practitioners as a "clinical tool" with their conclusions based on subjective insight. Until the present, no objective scoring system has been developed for the DAPIR. One of the most persistent problems in the use of projective techniques is the need to develop objective, reliable and valid scoring systems (Zubin, Eron, and Schumer, 1965).

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Among the goals undertaken in this study is the development of a well-defined scoring system for the DAPIR which is reliable, practical and useful. The major questions examined in this study included the following: (1) what is the reliability of the scoring system developed for the DAPIR, (2) what is the underlying factor structure of this scoring system and does it lend support to the construct validity of the DAPIR, (3) how do the obtained factors (if any) relate to the biographical, demographic, academic and behavioral variables assessed in this study, and (4) what are the applications of the DAPIR to the screening and counseling process.

Method and Sample

The sample consisted of 100 college freshmen enrolled in an introductory psychology course. The students ranged in age from 18 to 23 years old. The group was composed of 60 females and 40 males, with 85 students being Caucasian and 15 Black. For all students, this constituted their first full time experience in the college setting. The students were enrolled in a community college program with the major portion having poor academic skills. Most of the students came from inner urban lower socio-economic class environments.

The DAPIR was administered on a group basis to all the Ss during the first class session in the Fall Quarter. Prior to the testing, the Ss were not notified that they would participate in an activity of this nature. However, on the first day of class, the students were asked to volunteer; none of them took the option of not participating. After completing the DAPIR which took approximately ten minutes, the Ss were asked to fill out an extensive biographical questionnaire. Other data obtained for this study included high school grade point average,

examination scores from tests given during the introductory psychology course, and the overall grade point average for the quarter. In addition to the biographical data collected from the Ss, each student was rated by their psychology instructor on a behavioral rating scale which assessed factors similar in nature to those included in the DAPIR scales. Additionally, ratings were also obtained on the student's general adjustment to the academic situation.

The scores derived from the DAPIR were based upon existing scales and factors in human figure drawings which have been found to be useful as predictors of anxiety and stress. Furthermore, attention was also given to the analysis of basic behavioral dimensions which could be inferred from the DAPIR e.g. mood, emotion, assertiveness etc. Along with the aforementioned content and behavioral dimensions, a number of perceptual categories were used to analyze the structural and figural aspects of the DAPIR.

The scoring of the DAPIR proceeded in three stages; first, two raters were trained to a criterion of 80 percent interjudge agreement in the scoring system which had been developed for the DAPIR using examples taken from the pool of test protocols. This then constituted the operational definition of each category. Second, twenty protocols, which were randomly selected from the total pool, were scored by the judges. This then became the basis for establishing the interrater reliability of the DAPIR scoring procedure. Third, the remaining protocols were then scored independently by the two raters.

Results and Discussion

The interrater reliability as determined by the Spearman-Brown rank order correlation was relatively high in comparison to those standards set forth by a number of measurement theorists (Anastasi, 1969, Thorndike and Hagen, 1969). Of particular importance, is that the content categories which required a greater degree of interpretation compared quite favorably to the perceptual categories. On the whole, the reliabilities of each of the DAPIR scoring categories ranged from r=.68 to r=.89.

As regards the underlying factor structure of the DAPIR, a varimax rotation procedure yielded six major factors which accounted for 64 percent of the variance. The six factors which fell into both perceptual and content categories were as follows: (1) Reaction to Stress, (2) Environmental Detail, (3) Emotion and Mood, (4) Body Position, (5) Movement, (6) Adequacy of the Human Figure. These factors were consistent with the theoretical assumptions underlying the development of the DAPIR scoring system. The results, therefore, lend support to the construct validity of the DAPIR.

With regard to the correlations between the factor scores and the criterion measures, the perceptual factors with the exception of the movement score uniformly had low positive correlations with the criterion measures. On the other hand, the correlations between the content and the academic and behavioral ratings ranged from moderately positive to highly positive. Of particular importance, were the high positive correlations between the Reaction to Stress factor and (1) the first psychology examination test score; and, (2) the instructor's rating of security in class.

For the most part, the results are encouraging in terms of the reliability, validity and the practicality of the DAPIR. The major conclusions were: (1) that the DAPIR be used with other diagnostic and counseling information, (2) that it

could be used by teachers and counselors as a screening technique; and, (3) that the DAPIR and other screening techniques must be integrated into a total in-service training program which could train teachers to identify students who might potentially need more intensive counseling. The findings are discussed in terms of the most appropriate use of the DAPIR for early identification screening, in the counseling process, and for future research efforts.

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